

# 9.11 POSITIVE ION COMPOSITION IN THE POLAR D AND E REGIONS MEASURED DURING MODERATE IONOSPHERIC ABSORPTION

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During the MAC/Epsilon campaign a mass spectrometer probe was flown on a rocket launched from Andoya (Norway) on 12 November 1987 at 0021 UT providing partial ion density profiles in the altitude range between  $< 50$  km and 125 km. Due to the short sampling period of 0.17 seconds structural features could be observed at  $\sim 150$  m height resolution in the regimes where metal ions occur and where cluster ions are dominant. The observations were made during stable ionospheric absorption of 1 - 1.5 dB. Preliminary results are presented and discussed.

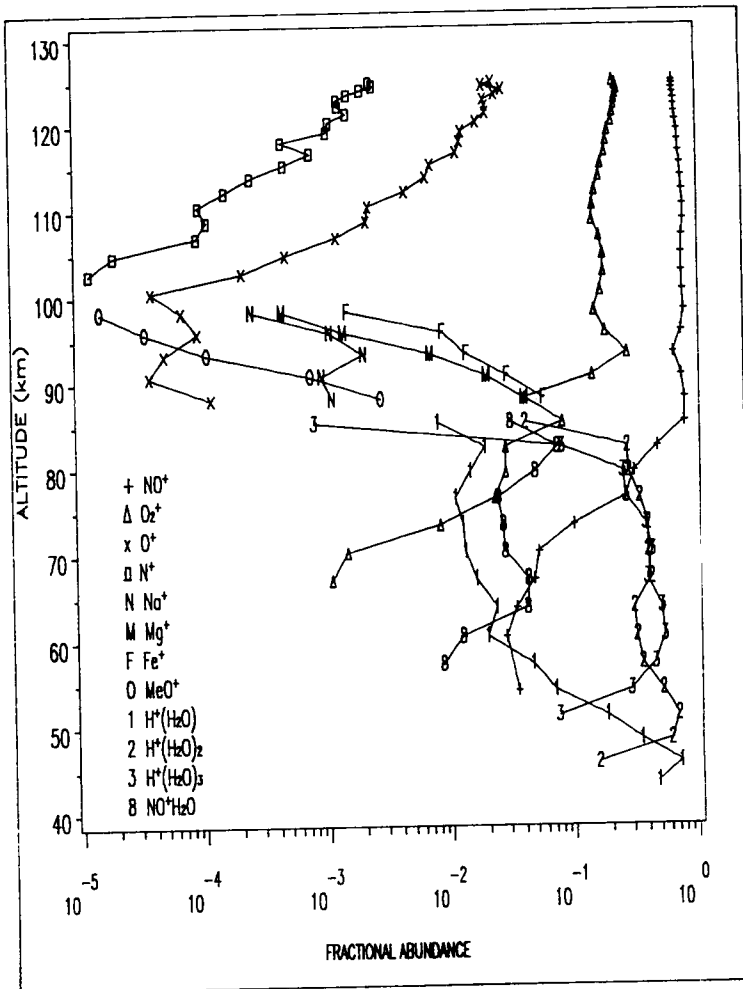


Figure 1.

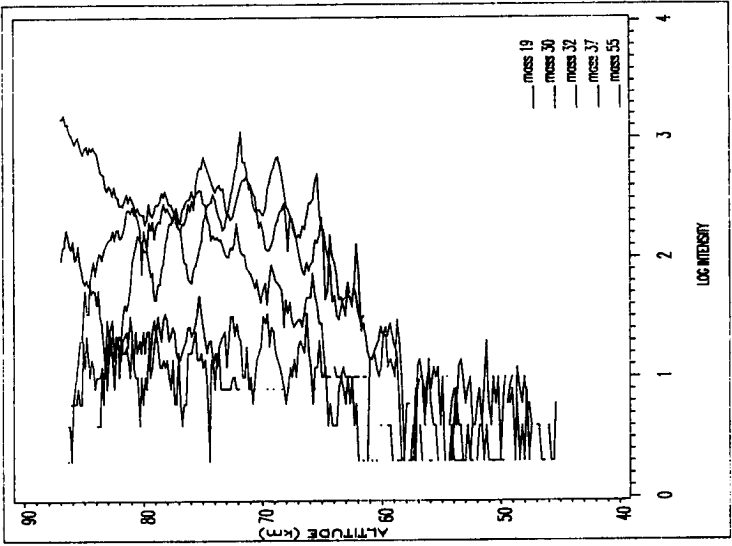


Figure 2.

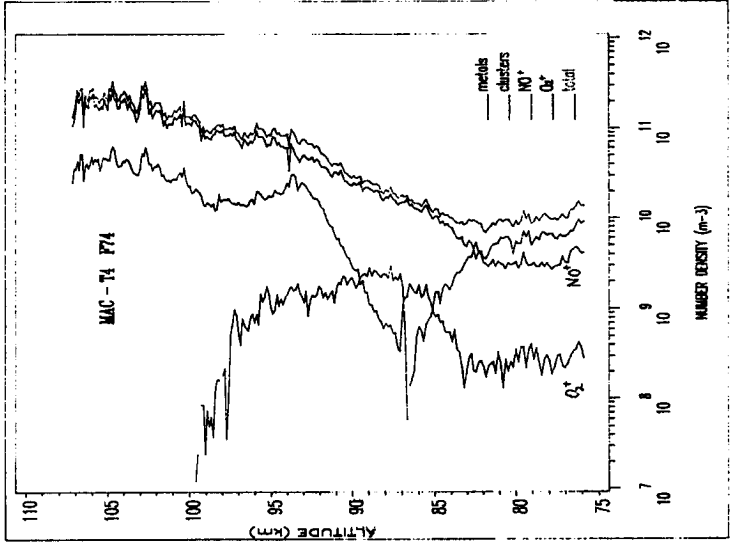


Figure 3.

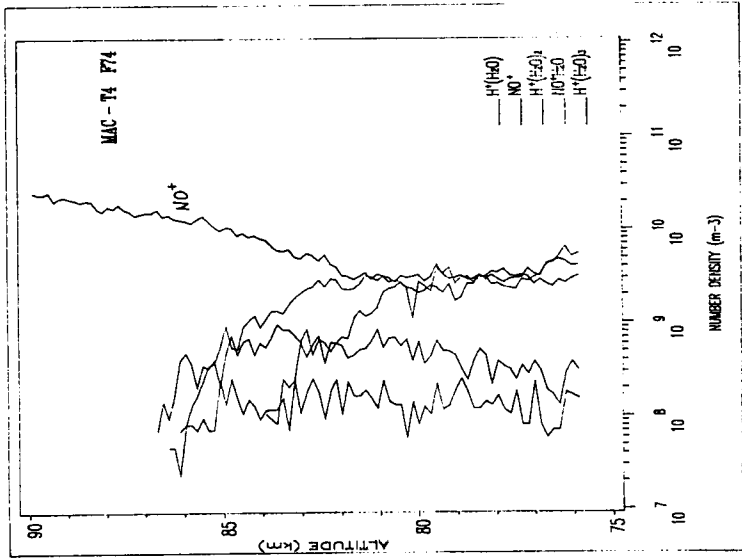


Figure 4.

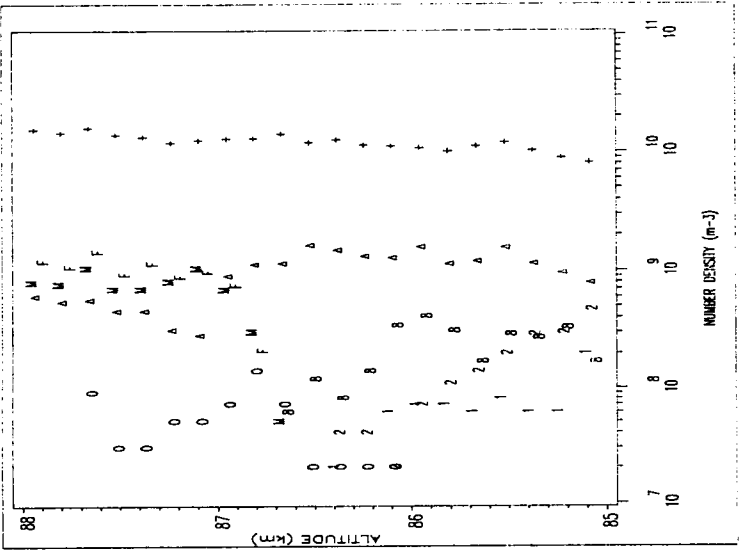


Figure 5.